BACKACHE DUE TO SEMINAL VESICULITIS AND PROSTATITIS*

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DISCUSSION *by Thomas A. Stoddard, M. D., San Francisco, F. S. Dillingham, M. D., Los Angeles; R. Campbell Begg, M. D., Wellington, New Zealand; H. A. Rosenkranz, M. D., Los Angeles; Robert V. Day, M. D., Los Angeles.*

NO type of pain has caused the medical profession more embarrassment than backache, or diverted more of our patients to the various pseudomedico-religious cults, even though in the great majority of cases backache means little more than a short period of physical unhappiness easily remedied by any placebo such as kidney pills, porous plasters, electric apparatus or massage. A few years ago the court calendars were clogged with "railroad spine" cases and miraculous recoveries followed their settlement—the "Gold Cure." Now, employers of labor and carriers of insurance are concerned about backache more than any other lesion because of the possible long periods of disability that follow trivial injuries.

BACKACHES IN RE INDUSTRIAL INSURANCE

With the inauguration of compulsory compensation insurance practically all salaried people have been included within the provisions of the law. Consequently all doctors are being forced to become interested in industrial insurance if they intend to continue in the private practice of medicine.

Because of the rules of the all-powerful labor unions prohibiting physical examinations before employees are hired, workmen are accepted as 100 per cent fit. Following a slight injury or strain an arthritis of the spine recurs or develops, secondary to a focus of infection that may have been present for years. The man then becomes a charge not for weeks but for months, or years. The employer or his insurance carrier pays compensation, hospital fees, doctors' bills, physiotherapy, etc., so that back cases represent a very important outlay of expenditures. The bony changes that have taken place in the spine over a period of years may not be discovered until after the damage is beyond repair, but if the focus of infection that was responsible for the arthritis can be eradicated the pain will disappear and the man, although not "cured," can be put back to work in as good condition as before his "accident." It has been found that a large proportion of the cases of low backache have an infection of the prostate and seminal vesicles and that as soon as free drainage is established the backache disappears. The term prostatitis is commonly used in the literature to include seminal vesiculitis. I want to emphasize the fact that although the primary infection is in the prostate it is the secondarily infected seminal vesicles that are responsible for the metastatic infection.

STATISTICS

The series of statistics in the literature are of questionable value because of their meagerness both as to numbers and details. As yet no medical director of an industrial accident commission has published an analysis of the thousands of cases that have been thoroughly studied and recorded in his files. During the past five years it has been my privilege to see as a consultant a large number of cases of low-back pain that had not responded to the routine orthopedic treatments and physiotherapy, and consequently were being investigated as to the question of focal infections. This paper is based upon that experience, as well as a review of the literature of the past twenty years.

EARLY HISTORY

The possibility of non-venereal seminal vesiculitis as the focus of infection in cases of low-back pain is not generally appreciated by the industrial surgeon. This is easily understood when it is realized that scientific urology is only a few decades old. Lognean, in 1815, described chronic inflammation of the prostate as a complication of gonorrhea, but other diseases of the prostate were ignored until Lallemand, in 1836, called attention to a category of maladies, previously attributed to mental and nervous diseases, and noted the improvement of these neurotics after treatment of the prostate and seminal vesicles. Following the publication by Young, Geraghty, and Stevens twenty years ago of a detailed study of 358 cases of chronic prostatitis, the general practitioner began to be interested in the disease. However, it was not until the comparatively recent illness of a President that the word "prostatitis" was considered sufficiently respectable to occupy the head lines of the front page of the newspapers.

ETIOLOGY

Even today most people believe that all prostatitis and seminal vesiculitis are of venereal origin. However, prolonged ungratified sexual desires, excessive physiological or abnormal sexual indulgence, with the attendant local engorged condition is an important etiological factor in all non-gonorrheal and most gonorrheal prostatitis cases. Sexual perversions, the practice of coitus interruptus, excessive masturbation or the frequent indulgence in the popular petting parties of the day are of more importance than gonorrheal infections as causes of prostatitis. In rare instances chronic prostatitis and seminal vesiculitis occur as a complication of general septicemia and other infectious diseases, and it may follow local trauma such as repeated vigorous prostatic massage, bicycle riding, or habitual sitting on cold marble steps. It is probably for this last reason that prostatitis is so prevalent in Baltimore. Opinions differ concerning the longevity of gonorrheal organisms in the seminal vesicles; however, second-

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ary invaders, with which the industrial surgeon is concerned, may be present for years.

Of course the question of posture as a factor is important. When we become tired, depressed or weak, we slump and assume the former attitude of our remote ancestors. There is a loss of muscle tone in the back, hence a predilection for pain in that region due to the added strain, and referred pain from a prostatitis augments this complaint.

Immediately after the publication of Billings' work on focal infections the subject became a rival of neurasthenia as a blanket to cover carelessness, loose thinking, and other clinical sins. The patient who had no clear-cut complaint was no longer casually treated for nervousness, but instead had to be very firm in order to keep his teeth, tonsils, appendix and gall bladder, and yet seldom did one have his prostate palpated. The inevitable reaction followed and now focal infections are of only casual interest to industrial surgeons. The employer of labor has only a slight acquaintance with the term neurasthenia, but "sacroiliac slip" and "sprained back" he knows only too well. The average backache is rarely primary or demands wholly the type of treatment given by the orthopedic surgeon, and only in a great while is operative interference indicated. Many sprained backs are secondary to infections of the genitourinary tract, but it is just as erroneous to attribute all to seminal vesicle infection as to say that all seminal vesicle infections are secondary to venereal diseases. Nielson, an internist, made a study of 200 patients who had a variety of complaints ranging from stomach trouble to sciatica, none of whom had genitourinary symptoms nor had had a Neisserian infection within two years, and was amazed to find that practically no prostate examinations had been made although many of the patients had been through diagnostic clinics of national reputation. Only fifty-eight of the patients admitted a previous gonorrheal infection, but eighty-five had pus in their prostates.

In the past, backache was considered a characteristic complaint of women, but as a result of the popularity of gynecologic examinations with resultant appropriate treatment this is no longer true, there now being two cases of backache in man to one in woman. Michel reported that 75 per cent of the cases of backache in men are secondary to prostatitis and seminal vesiculitis due to disturbed sexual life or the results of venereal diseases.

PATHOLOGY

Fibrositis is due to a hyperplasia of the connective tissue with exudation and proliferation of the fibrous tissue elements. This inflammatory overgrowth in the tissues of the small of the back may undergo resolution and entirely disappear if the focus of infection is attacked early and eradicated. But if the treatment is neglected it may go on to organization and formation of adhesions, and thickening and contracture of the connective tissue. The latter is what causes the stiffness of the spinal area involved.

Prostatic or seminal vesicle diseases cause backache through referred pains; or by means of metastatic infection with resultant local fibrositis or arthritis in the lumbosacral spine, thereby causing the patient to assume an attitude in standing or walking which increases muscular back strain; consequently the static element is often directly responsible for the pain in the muscles and ligaments of the back.

SYMPTOMS

The pain in the prostate and seminal vesicles is directly due to lack of drainage, just as renal colic follows interference with the free flow of urine from the kidneys. The wide distribution of referred pains from the prostate and seminal vesicles can be rationally explained, since the innervation is entirely sympathetic and parasympathetic. Head et al. have shown that the fibers ending in these organs arise from the tenth dorsal to the third sacral segments, so it is possible for prostatic and seminal vesicle pain to be referred to regions innervated by any of the corresponding spinal nerves. Because of a psychical error of judgment the diffusion error is accepted by the patient and the pain is referred to the surface of the body instead of to the viscera actually affected.

In Young's series of cases low lumbar back pain was the predominating symptom. One of the characteristic differential points of seminal vesicle backache is that the pain is made worse by pressure on the structures at fault, but back motions are not limited until arthritis develops. Particularly important in the lower back is the presence or absence of tenderness on pressure in the area where the pain is felt. If the two coincide it suggests that the diseased condition is localized, otherwise we are probably dealing with referred pain. Pain represents irritation of the sensory nerves supplying the affected area, or the nerve which has some connection with it. The seat of pain and the cause of that pain are not necessarily in the same situation. Infections may cause symptoms for years before x-ray changes will be manifest. Furthermore a spine that shows marked hypertrophic changes will often give no symptoms following the clearing up of the responsible focus of infection.

DIAGNOSIS

Notthafft first called attention to the fact that pus often does not make its appearance until from the second to the fifth massage, and indeed pus and normal secretion may alternate in a few cases. Long-standing infections are sealed in, and take several treatments to break down the barriers and release the pus and bacteria.

The average practitioner gains just as much accurate information about the prostate from a casual rectal palpation as does the ordinary urologist about the heart from looking at an electrocardiograph tracing. The fact must be emphasized that prostatic massage does not consist merely of inserting a gloved finger in the rectum and squeezing or rubbing vigorously. This was impressed upon me about ten years ago, when

one of my colleagues, who devoted "special attention to urology," told me that in six years he had never knowingly palpated a seminal vesicle but had merely massaged blindly on a full bladder and generally found that by having the patient void after the massage he had obtained secretion. This incident has been responsible for making me hesitate to accept all prostate reports, and therefore I was interested in the following paragraph from a letter by Charles Minor Cooper, clinical professor of medicine, Stanford University, published June 16, 1923, in the *Journal of the American Medical Association:* "For some years I had recognized that my finger was not long enough to enable me to elicit satisfactory findings concerning the condition of the seminal vesicles, and I had been in the habit of depending on the well-recognized genitourinary specialists for this information. It finally occurred to me that perhaps the physical limitations of these specialists might similarly be a bar to their efficiency in this respect, so I sent a number of these patients to a surgeon whom nature had endowed with unusually long fingers. The results have been highly gratifying. Many patients who previously had been examined with negative results by different well-trained urologists obtained drainage of hitherto unrecognized, pent-up, infected material, with consequent relief from their fibrositis."

TREATMENT

Straub says the doctor who treats the backache without clearing the prostate or other sources of toxemia is as guilty as a quack. There is perfect agreement that the treatment of a patient who has a small stone in the ureter or a chronic seminal vesiculitis with measures to cure a local backache is inexcusable. It is true that the prostatitis and seminal vesiculitis may get better or the stone may pass and with it the backache may disappear in spite of the mistaken diagnosis and treatment; but where does such a practice differ from that of the charlatan? The average internist does not follow the teaching of the late Sir William Osler, to make a rectal examination on every patient. A microscopical examination of the urine in every case of backache should be routinely done, and if the centrifuged second glass of urine contains pus or organisms the genitourinary tract should be investigated for a focus of infection.

The treatment of prostatitis and seminal vesiculitis is as stereotyped as that of bleeding gums. After the dentist gets through with vaccines, fancy applications and explanations, he reverts to the use of a scaler, scrapes out the "tartar," and the gums heal. Sealed pockets of pus in the prostate and seminal vesicles must be drained. Seminal vesiculotomy was hailed at one time as a cure-all, but unfortunately all crypts cannot be opened and a pinpoint focus will continue to cause trouble. Vaccines, intravenous medications, etc., all have their place, but massage still remains the keystone of the treatment of prostatitis and seminal vesiculitis, and at best it is a non-surgical inexact procedure.

However, the individual with the backache must not be lost sight of because of the discovery of

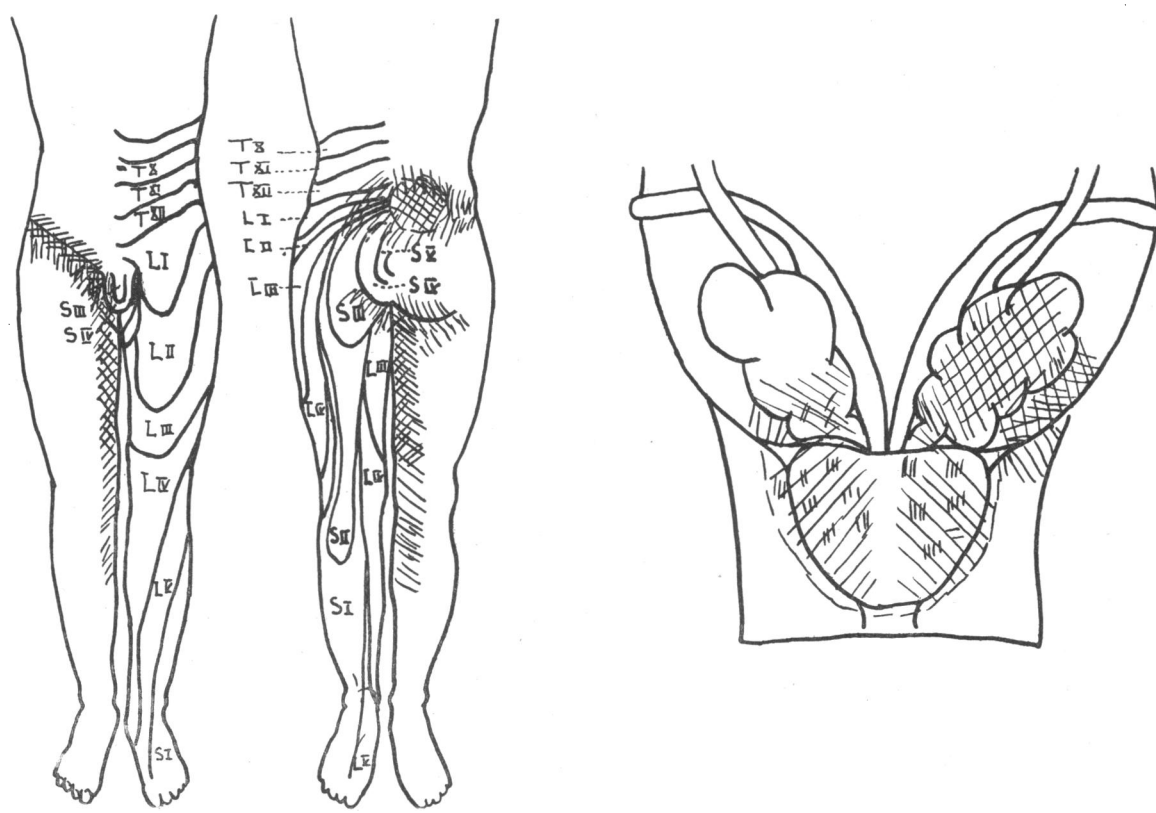

Fig. 1—Case 1. The left side shows the segmental skin fields according to Head et al. The painful areas described as "sprained back, sprained tendons, and rupture" correspond to the skin areas of the first and third lumbar nerves. The prostate was enlarged and contained indurated nodules. The right seminal vesicle was markedly involved and was pulled downward and outward by dense adhesions. The severity of pain and amount of induration is indicated by the shading.

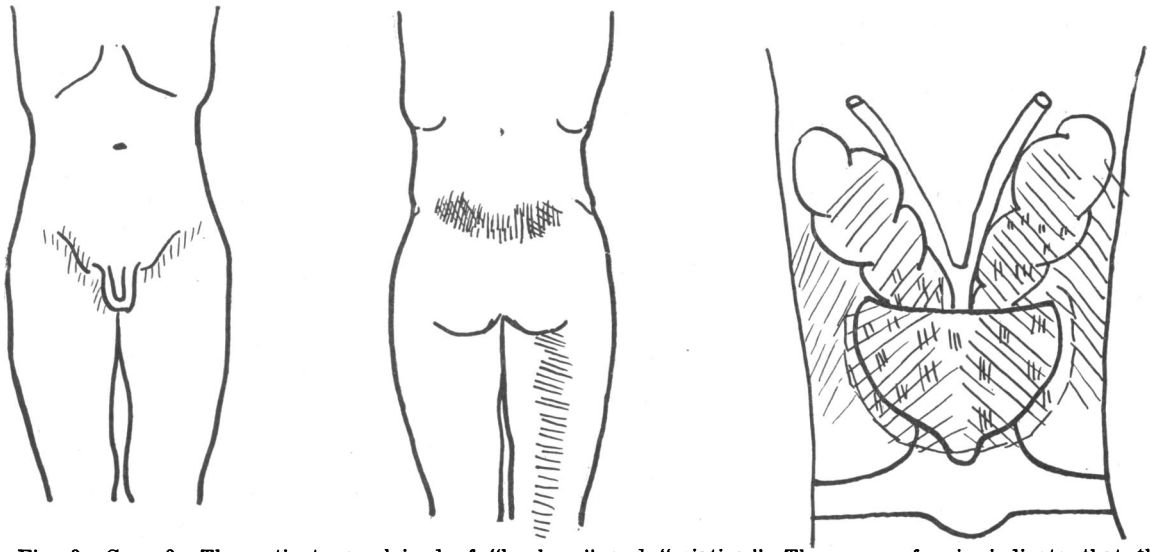

Fig. 2.—Case 2. The patient complained of "lumbago" and "sciatica." The areas of pain indicate that the (right) first lumbar and second sacral nerves are involved. The prostate and right seminal vesicle are the sources of infection, and all pain disappeared as soon as drainage was established.

his seminal vesiculitis. If the man is returned to work early, psychology and suggestion are of importance. A friendly interest and a constant effort to stimulate the individual to make an attempt to do more without too much disparagement of his complaint is very important.

The following brief case reports of backache characterize some of the complications that follow non-venereal prostatitis and seminal vesiculitis.

CASE REPORTS

Case 1—(No. 390), S. O. R., 45, married, laborer, referred November 6, 1924, by Dr. L. O. Kimberlin to determine if a focus of infection was present that might be responsible for the complaints of sprained back, sprained tendons in the right leg, and rupture, the orthopedic examination being negative (Fig. 1). He gave a history of helping to lift a scaffold high above his head seven days before. During the maneuver he noticed a catch in the right leg, in the back, and in the right groin.

The personal history was unessential except that although he denied all history of venereal diseases he admitted excessive masturbation as a youth, the indulgence in frequent unsatisfactory petting parties as a young man, and coitus interruptus during his married life. For a number of years he had suffered from an indefinite pain in the lower abdomen which had been diagnosed as "stomach trouble." Examination: The urine contained shreds, pus, and bacilli. Both inguinal rings were dilated, but there was no impulse on coughing. There was a small left varicocele and bilateral, enlarged, tender spermatic cords; pain over the sacroiliac region and extending down the inner side of the thigh from the right Poupart's ligament to the knee. The prostate was large, tender, and contained many indurated nodules on deep palpation. The seminal vesicles were enlarged and pulled downward and outward by adhesions, the right being the most prominent. The expressed secretion contained no spermatozoa but masses of pus, and a stained specimen showed bacilli. When his prostate was massaged he complained that it felt as if a hot iron extended through to the groin and then the pain spread down to the knee, the back pain being aggravated at the same time. On the following day he reported that his pains had very much decreased. After the prostate had been massaged a few times all symptoms disappeared and he returned to his regular duties.

Case 2—(No. 64), H. R. C., 25, divorced, bank teller, referred by Dr. H. H. Markel, August 9, 1926, because of pain in the lower back extending down the course of the right sciatic nerve (Fig. 2). At times he appeared to lose control of his leg, and it had a tendency to buckle under him so that he feared to walk without a cane He grew progressively worse under appropriate orthopedic treatments, so a search was started for a focus of infection.

There was no history of venereal diseases or excessive masturbation. This patient had been examined April 25, 1922, preceding his marriage, and was found to have a normal seminal vesicle and prostatic secretion. He was highly sexed and married a frigid woman. Throughout the four years of his married life he was permitted to have intercourse once every three months and during the intervening periods suffered from frequent prolonged genital engorgement. Examination: Urine contained shreds in the first glass, the prostate was larger than normal, with indurated nodules throughout; the seminal vesicles were enlarged and pulled downward and outward by adhesions, and deep palpation was exquisitely painful. The expressed secretion contained no spermatozoa, but was 100 per cent pus, some of the clumps apparently being casts from the vesicles.

The treatment consisted of routine massage, irrigations, instillations, etc., and within ten days all pain had disappeared and the cane was discarded; a few weeks later the belt was laid aside, and at the end of two months he drove an automobile 900 miles in thirty-six hours without any discomfort.

Case 3—(No. 740), C. L. R., 34, single, lawyer, complained of pain in the back and groins of eleven years' duration. There was no history of venereal diseases. As a youth he practiced masturbation in moderation, and this was followed by a practically continent sexual life. Eleven years ago, following a "wine, women, and song" party, during which he had intercourse once, he developed urgency, dysuria, strangury, pain in the groin, and back. He consulted an eminent eastern urologist, who found nothing pathological. Two years later, following a similar celebration, the same symptoms returned. He had several "complete" physical examinations which disclosed no foci of infection other than impaired sphenoids, which were surgically drained without any effect upon the arthritic symptoms. He was ordered to a hot climate, and spent four months in the Arizona desert without appreciable effect.

Because of the association of bladder symptoms and backache he still was unconvinced, despite the numerous negative urological reports that he did not have a focus of infection in his seminal vesicles. Upon his return from the desert vacation, as a matter of diagnostic interest he had intercourse and there was a

flare-up of his arthritis and a recrudescence of all of his former bladder symptoms. Examination: Urine was negative except for shreds in the first glass. Prostate was large, tender, and contained indurated nodules on deep palpation. The seminal vesicles were pulled downward and outward by adhesions. The expressed secretion contained masses of non-motile spermatozoa and large clumps of pus lying between the strands of mucus from the seminal vesicles.

Following massage the back symptoms have practically disappeared, but at intervals he still is conscious of his left vasitis.

CASE 4—(No. 555), C. E., 59, married, retired clergyman, referred by Dr. Wallace I. Terry on August 28, 1925, because of acute retention of urine precipitated by an automobile trip. He was wearing a steel back brace to which he had just been promoted from a plaster cast, and stated that for the preceding seven years he had been constantly in the care of various orthopedic surgeons. Furthermore he had long noticed a direct relationship between the back pains and his urinary disturbances. He denied a history of venereal diseases, but admitted excessive masturbation before marriage, and following the arrival of the desired offspring he practiced sexual sublimation with the resultant loss of all sexual desires. Examination: There was an infected residual urine secondary to a benign prostatic hypertrophy and the prostatic secretion contained 100 per cent pus. A perineal prostatectomy was done with immediate and apparently permanent cessation of all backaches. The operative incision evidently drained the foci of infection responsible for the backache. Incidentally, a year after his operation he reported a youthful renewal of his long-lost sexual powers, which eventually resulted in his seeking advice as to a presumable pregnancy.

SUMMARY

1. With the growth of compensation insurance new treatments came into vogue. Whereas in the past the workman with the lame back represented either a charity patient or the source of an expert witness fee, in case the damage suit was won, he is now the source of considerable income primarily because of the physiotherapy. While his back is daily exposed to the rays of the Alpine lamp, a walled-off infection in his seminal vesicles continues to pour forth toxins and the arthritis progresses. What the average back case needs is more diagnosis and less physiotherapy.

2. The prostate and seminal vesicles should be carefully examined in every case of backache. The liquid secretion ordinarily expressed by rectal palpation is wholly from the prostate, that from the seminal vesicles appearing as a viscous plug made up of mucus and spermatozoa, the motility of the spermatozoa varying indirectly with the virulence of the infection.

3. The acute infection invaded the prostate and later extended to the seminal vesicles. The original organism probably died out or was replaced by secondary invaders. The ordinary infection disappears spontaneously if there is drainage, and for that reason it is not unusual to find a normal prostate secretion and a plugged vesicle filled with a virulent infection.

4. Pain in the back and groins is a common complaint, and too often a diagnosis of sprained back and industrial hernia is recorded instead of seminal vesiculitis and sequellae.

5. All cases of industrial backache with seminal vesiculitis should be given at least a month of treatment as a therapeutic test.

6. Backache due to prostatitis and seminal vesiculitis is often temporarily aggravated by massage through the lighting up of a latent infection.

7. Trauma is blameless as an etiological factor in a large percentage of cases of "traumatic backs." Two elements must be investigated in every alleged traumatic backache: (1) Is there a backache? (2) Did trauma play any part in it? Industrial patients are just as prone to blame all of their aches on the last strain suffered as the average patient is to attribute his cure to the last medicine used or the last doctor consulted.

8. The patient is often the victim of false reasoning and is not a malingerer. He honestly believes that his backache of today is due to yesterday's work. He exaggerates his symptoms and he fears that if he does light work he will prejudice his claims for compensation.

9. The seminal vesiculitis was not due to the injury, but a slight strain caused an acute exacerbation and called attention to the infection. However, since the man's incapacity followed a strain the law requires that he be cared for and put back to work; not made perfect but returned in as good condition as before the strain. The orthopedic surgeon must put at rest the painful muscles, tendons, etc. Physiotherapy is of value, but the underlying cause of the trouble that exploded with the slight strain must not be forgotten. Insurance companies occasionally buy false teeth for a man because they know that cleaning up his mouth may put him back to work sooner than expected, and the plates are a good investment. The foci of infections must be eradicated be they located in the teeth, tonsils, sinuses, seminal vesicles, or what not.

10. No case of backache should be subjected to orthopedic operative procedures so long as his urine or prostatic and seminal vesicle secretion contains pus.

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DISCUSSION

THOMAS A. STODDARD, M. D. (490 Post Street, San Francisco)—The gynecologists called our attention to infections of the uterus and its appendages, and their relation to backache. We have seen the benefits derived by their proper attention. Now come the urologists "doing their stuff," and calling attention to the fact that infections of the male homologous organs, i. e., the prostate and seminal vesicles, can produce the backaches the females have been relieved from and that many a backache laid to industry has been miraculously cured by relieving these organs of chronic infections. Doctor Wesson has tersely and properly described the anatomy, pathology, and symptoms of referred backache from infected pelvic viscera. One of the most potent causes of persistent backache is latent infective arthritis lighted up by a back strain of more or less, and often trivial severity. The foci of infection may have been present in a subacute state for years and not recognized, or may have been thought to have been cured. Most doctors neglect to examine the pelvic viscera by reason of mistaken delicacy, or because their attention has not been called to this ever present potential region of focal infection. This prudishness has cost many weeks of suffering and hundreds of dollars' worth of loss of productive time, to say nothing of thousands of dollars spent by insurance companies in compensation and medical fees.

Back strains that do not react to rest and guarded use within the time of formation of normal scar, i. e., two to four weeks, should be thoroughly investigated for focal infection. The lower the pain the more suspicious one should be of the pelvic viscera.

Most medical men are poorly equipped or poorly

trained in prostatic diagnosis. I am no exception to the general rule; my fingers are too short. A suspicious case should be sent to the well-trained, long-fingered man, and repeatedly examined, if necessary, to prove the case negative. This is very important. I have had a number of cases cleared up by insisting on this rule even though they brought histories of negative results of examination. I am convinced that more massage of the prostates and seminal vesicles and less heat and massage to backs will give us better results.

Pelvic visceral infections often refer pain to the groin as well as to the back. When a tender seminal vesicle is found with pain referred to the back on pressure you have probably located the cause for the backache, particularly if you find no tenderness at the point of referred back pain. Tender spots and subjective pain should coincide. No case of backache should be subjected to operative procedure so long as the pelvic viscera have not been proven negative or still contain pus.

I have had numerous cases of disabling, chronic backache that have promptly responded to proper stripping and draining of the seminal vesicles and prostate.

My experience brings me in hearty accord with Doctor Wesson's statements. I wish to congratulate him on his well-written warning to the medical profession and appeal for more careful investigation of the male infected pelvic viscera.

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F. S. Dillingham, M. D. (320 Merchants National Bank Building, Los Angeles)—Doctor Wesson has again chosen a subject that should be of great value not only to those interested in industrial medicine, but to those interested in all branches of medicine. This paper is very thorough, and I agree with Doctor Wesson. He is to be complimented on choosing a subject which has received so little attention.

Prophylaxis is still the most important consideration in the handling of this subject; early and persistent treatment till a complete cure, and not for just the duration of the subjective or objective symptom. If everyone would follow such a course the backaches, arthritis and other complications would soon be history.

Doctor Wesson struck the keynote when he said "drainage." This can usually be accomplished by local measures; if not, operative procedures are more exact now than ever.

The posture while massaging the prostate and vesicles is very important; with the patient on his knees and one elbow, in a kneeling position on a table of the proper height, the free hand holding the specimen receptacle, the examiner's forefinger is on a line with his elbow and he can reach beyond the prostate and as high as possible on the vesicles. Regular massage should be kept up until the prostate and vesicles are free of all indurated spots, and the microscope shows the strippings free from pus. Long after cultures show the fresh strippings free of gonococci the prostate and vesicles may retain enough accompanying germs to cause all of the classical referred pains as described in the paper. Massage should be thorough but not too hard, as exacerbations and local inflammation, and epididymitis may be caused by roughness. Following a careful massage, if the patient voids and the urethra and bladder is filled with some of the newer non-irritating dyes, as described by Doctor Vecki, much time will be saved. Many mild chronic infections of the prostate and vesicles causing almost no subjective symptoms and accompanied by a moderate amount of pus in the urine will cause an albumin reaction, and with a dull ache in the back some have been told that they have kidney trouble.

The typical pains of sacroiliac slip would not confuse the picture for the urologist, but the milder cases may explain why a low backache keeps up after the prostate has responded to careful treatment.

The mental aspect is really serious and ranges from mild neurasthenia to suicide. Influenza has been a cause of infection, also the use of non-sterile instruments or the rough use of sterile instruments. Colon bacillus infections frequently follow stasis in the intestinal tract, and it is usually a stubborn infection.

Doctor Wesson's paper should be brought to the attention of those doing periodic health examinations. A man under a five-year contract to take entire charge of a new oil field in South America, with a very heavy forfeit for failure to stay the full five years, was carefully examined and passed by the company staff of doctors, and just to be sure he was examined by his own New York doctors and passed. Just five days on the train and he came under my care with acute total retention. This is mentioned to bear out what Doctor Wesson has said as to the importance of examining the prostate and vesicles. By the way, it is surprising what little information is gained by the average doctor in examining a prostate. We have seen patients from which we could express 15 to 20 cc. of green pus called perfect.

Fresh strippings should be examined for living spermatozoa, as many apparently vigorous young men are found with all spermatozoa dead, but if the condition is recognized early enough they are cured if treatment is carried out faithfully.

To sum up, prophylaxis, early persistent treatment of the original infection, more routine examination of the prostate and vesicles, including microscopical examination of the strippings, treatment of the prostate and vesicles until all infection and induration are completely eradicated, and not only until the reflex symptoms are relieved.

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R. Campbell Begg, M. D. (Wellington, New Zealand)—I was very much interested in Doctor Wesson's statement that non-venereal prostatitis and seminal vesiculitis are as common as that of venereal origin. Tropical (non-venereal) prostatitis is very common in regions of excessive high temperature. In the Upper Euphrates Valley a temperature of 137 degrees is common, and a body temperature of 116 degrees is not unusual if the man lies on his back so as to diminish by that much surface his area for free perspiration. Consequently micturition consists of expelling residue composed of a few cubic centimeters of thick urine each day to keep down stone formation. If it were not for the routine note made in his diary one would forget that physiological function entirely. It is a land of bladder-stones and prostatitis.

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H. A. Rosenkranz, M. D. (1024 W. P. Story Building, Los Angeles)—The orthopedist has for years painstakingly examined the prostate and vesicles in arthritic and focal cases, but the general practitioner has overlooked a great many of them. About ten years ago I chided a colleague for not having examined the prostate. He replied: "What? I never put my finger in the rectum." Doctor Wesson's very lucid and convincing paper has been opportune in emphasizing this routinely valuable diagnostic point. The author states that there are again as many male as there are female back cases. This statement will be greeted as timely by those who have objected to Dr. Oliver Wendell Holmes' definition of the female: "A biped with a pain in the back."

Someone has mentioned syphilis of the spine. With the rather high incidence of syphilis it is rather probable that we have been overlooking some Charcot backs and that they are not so extremely rare as we have believed.

I have encountered a number of backaches that yielded readily and solely to prostatic massage, and yet the prostatic secretion presented merely the occasional normal pus cell and no bacteria. Some of these backs become quite stiff if the massage intervals were too long deferred. What causes these backaches? Is it the reflex from an engorged congested organ or is it the absorption and local effect upon the back tissue of a perverted prostatic-vesicular hormone, the disfunction having been inaugurated perhaps by a previous gonorrhea?

I am glad that Doctor Wesson has emphasized the established fact that an infection or rheumatism in a part that has been injured does not result directly from the injury but results from an already existing

infection or toxin in the patient's body, an infection that is ever lurking to attack any place where resistance is lowered, as by an injury.

Treatment—Experience has convinced me that diathermy and the hollow quartz ultraviolet ray applicator are useful adjuvants in these cases. The most direct treatment is, however, the removal of the cause, and aside from the measures mentioned by Doctor Wesson I would emphasize the oft-startlingly good results that are obtained by washing out the vesicles by vasopuncture. Some time ago at the Los Angeles General Hospital I demonstrated two arthritic cases who entered the hospital in a crippled bed-ridden condition that showed immediate and very marked improvement directly after vasopuncture, and were discharged several weeks later in a thoroughly ambulatory condition with joints well loosened up. These were cases of gonorrheal rheumatism of quite long standing.

Physicians and their patients sometimes wonder why their cases do not respond more rapidly after the removal of the primary focus. They must bear in mind that a chronic knee having persisted for a long time has in itself become primary focus number two and must be treated accordingly.

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ROBERT V. DAY, M. D. (704 Detwiler Building, Los Angeles)—This paper is timely and I agree with it throughout. I want to emphasize that it is not the infection in the prostate that gives rise to metastatic infection elsewhere, but that metastatic infection arises from the concomitant infection in the seminal vesicles. There has been a superabundance of false teaching to the effect that the prostate is the guilty focus of infection. However, infection in the prostate is so often an index to infection in the seminal vesicle that it is frequently a good guide. Too often no attempt is made to distinguish between infection in the prostate and in the seminal vesicles, and the innocent prostate is given the credit for the sins of the guilty seminal vesicles. The diagnosis of vesiculitis is frequently difficult because of the mixing of the contents of the seminal vesicles with the prostatic fluid; however, if clumps of pus are found imbedded between strands of mucus containing spermatozoa it is proof positive of the presence of a focus of infection in the seminal vesicles. In the presence of an undrained focus of infection in the seminal vesicles orthopedic operative procedures for the relief of low backache are never justified.

ARTHRITIC JOINT PAINS AND GOUT*

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DISCUSSION *by Philip King Brown, M. D., San Francisco; Ernest H. Falconer, M. D., San Francisco.*

ALTHOUGH known since antiquity, gout, or uric acid diathesis, as some prefer to call it, still remains an interesting problem. Whether it is a rare or a common disease in this country is a mooted question. According to statistical reports its incidence in the wards of Cook County Hospital, Chicago, is .39 per cent. This is a little higher than at St. Bartholomew's, London, the home of gout, where the percentage is .37. At the Peter Bent Brigham the percentage of gout to total admissions is .22; lower than at Johns Hopkins, which has a percentage of .29. Between 1821-1916 the Massachusetts General Hospital shows the very low percentage of .03. What are we to conclude from these figures? They may mean either an increased incidence of gout in certain portions of the United States, or that among the many cases of arthritis a few cases of gout escape early recognition. This latter supposition is the basis for this paper, that is, if gout is not considered in the differential diagnosis of patients complaining of arthritic symptoms, it seems very probable that some early or even advanced cases may not be diagnosed.

In considering this problem let us take for example the patient who comes for relief of arthritic pains. Predominant in mind when considering the etiology is the possibility of foci of infection. Roentgenograms are made of suspicious teeth; tonsils are rigidly examined for evidence of infection or the patient is sent to a throat specialist for an opinion. If one or more possible foci are discovered it is a question which is the principal offender. If we explain the patient's symptoms on the basis of foci of infection he usually inquires as to how much benefit he will receive from their removal, especially if it has been determined that one of the foci requires a laparotomy for its eradication. In every patient of this type it is of great importance that we exclude the possibility of gout before rendering an opinion.

TOPHI PATHOGNOMONIC OF GOUT

The classical description by Sydenham of the symptomatology of this disease has not been improved to date. It is well known to all of you, and I shall not burden you with its repetition. Even more important than the history is a careful search for tophi, and no physical examination is complete unless their presence or absence is noted. They are usually found on the margin of the ear or on the antihelix or pinna. The fingers, toes, and elbows are other sites of predilection. All parts of the body should be examined for them. Unusual locations are the edge of the eyelid, thyroid cartilage, vocal cords, and corpus cavernosum. The frequency with which bursae become inflamed in gout is not generally recognized, and perhaps only after incision and the finding of chalky sodium biurate material instead of pus is the real cause of the condition discovered. The skin overlying tophi is generally yellow, white or opaque. Over a newly formed tophus it may be natural or red. Sebaceous cysts, milia, and small projections of cartilage may be mistaken for tophi. The diagnosis of a tophus should not be made without removing some of the contents of the nodule and demonstrating with the microscope the presence of the needle-shaped crystals of sodium biurate. According to majority opinion the presence of tophi is pathognomic of gout.

AIDS IN DIAGNOSIS

In all cases of arthritic joint pain in which the etiology is not clear a blood uric acid test is essential. At the Woodland Clinic the question of gouty diathesis is considered of such importance that a blood uric acid is done as routine on all patients suffering from arthritic joint pain in which the etiology is not easily established.

At times a high blood uric acid may be found in a patient who shows no tophi after careful

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